Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Digital Audio Broadcasting Systems	)	
And Their Impact On the Terrestrial Radio	)	MM Docket No. 99-325
Broadcast Service	)	

Reply Comments of iBiquity Digital Corporation

Albert Shuldiner
Vice President and General Counsel
iBiquity Digital Corporation
8865 Stanford Boulevard
Suite 202
Columbia, Maryland 21045
(410) 872-1536

Robert A. Mazer
R. Edward Price
Vinson & Elkins L.L.P.
1455 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
(202) 639-6500

Counsel for iBiquity Digital Corporation

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EXECUTIVE SUMMARY

The comments reveal that a strong consensus has developed in support of IBOC among a broad cross-section of the radio industry, including large and small broadcasters, transmission, semiconductor and receiver equipment manufacturers and potential developers of IBOC applications. The vast majority of the comments recognize the need to provide radio broadcasters with a digital future, emphasize the viability of IBOC technology and the positive results of iBiquity's tests, and strongly encourage the Commission to proceed quickly with IBOC. Based on this record, iBiquity urges the Commission to immediately endorse IBOC and the iBiquity system.

The comments indicate that many entities are anxious to commence digital broadcasting and are excited about IBOC's ability to enable broadcasters to improve service for their listeners. Many commenters also note that IBOC will allow broadcasters to remain competitive in a world where the Internet and satellite DARS services are offering new means for distribution of audio programming and urge prompt Commission action to authorize IBOC on an interim basis pending adoption of final rules. iBiquity supports this view and has established a business plan that will allow for the expeditious commercial introduction of IBOC service this year. In order to meet industry time requirements, it will be critical for the Commission to authorize interim IBOC operations in its First Report and Order on digital radio. Grant of interim authority is consistent with Commission precedent; it would not prejudice final IBOC rules due to the technology's built-in flexibility and the natural limitations on IBOC proliferation during the interim period; and it would not harm the technical integrity of existing analog operations.

Certain commenters address regulatory issues associated with the introduction of IBOC. iBiquity believes that these issues do not need to be resolved in order for the Commission to

endorse IBOC and the iBiquity system. Rather, these issues should be addressed in a Further Notice of Proposed Rulemaking that should be issued at the same time a First Report and Order is adopted. The specific issues raised relate to interference protection and establishment of an IBOC standard. iBiquity will provide its detailed views on these issues in the future.

For the reasons discussed herein, iBiquity urges the Commission to expeditiously endorse IBOC and the iBiquity system as the means to implement digital radio in the United States, establish an interim approach that will allow broadcasters to begin transmitting IBOC signals in the Fall of 2002 and issue a Further Notice of Proposed Rulemaking with proposed final rules for IBOC implementation.

TABLE OF CONTENTS

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	)	
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Reply Comments of iBiquity Digital Corporation

iBiquity Digital Corporation ("iBiquity") hereby submits these reply comments in the above-captioned proceeding.[1] On February 19, 2002, the Commission received numerous comments from a broad cross-section of the radio industry endorsing iBiquity's FM In-Band On-Channel ("IBOC") Digital Audio Broadcasting ("DAB") system and encouraging the Commission to promptly authorize IBOC transmissions in the United States. As discussed in greater detail herein, iBiquity urges the Commission to adopt these recommendations and to promptly endorse IBOC and the iBiquity system based on the recent report of the National Radio Systems Committee ("NRSC")[2] and the comments in this proceeding.

I. The Comments Demonstrate There Is A Consensus That IBOC Is The Best Means To Implement DAB In The United States

The comments reveal that a strong consensus has developed in support of IBOC among a broad cross-section of the radio industry, including large and small broadcasters, transmission, semiconductor and receiver equipment manufacturers and potential developers of IBOC

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1 *See Public Notice*, DA 01-2932, MM Docket No. 99-325 (Dec. 19, 2001).

2 *Evaluation of the iBiquity Digital Corporation IBOC System, Part I-FM IBOC* dated November 29, 2001 (hereinafter referred to as "NRSC Evaluation"). The NRSC is an industry group jointly sponsored by the National Association of Broadcasters ("NAB") and the Consumer Electronics Association ("CEA").

applications. The vast majority of the comments recognize the need to provide radio broadcasters with a digital future, emphasize the viability of IBOC technology and the positive results of iBiquity's tests, and strongly encourage the Commission to proceed quickly with IBOC.[3]

Because IBOC involves the introduction of a new signal in the heavily used broadcasting bands, it presented numerous technical challenges that had to be addressed in order to promote digital performance without interfering with existing analog operations. The radio industry had been hesitant to endorse IBOC absent a definitive showing that the technology can offer an improvement over analog service and that it can be implemented without causing harmful interference to analog broadcasts. iBiquity undertook a rigorous testing program to provide conclusive evidence that IBOC works and will be able to coexist with analog broadcasting. Today, the radio industry has reached a consensus that IBOC can be implemented without harming existing analog broadcasting and should be promptly authorized in the United States. Infinity's comments succinctly summarize the current state of the iBiquity system:

> (i) the iBiquity hybrid FM IBOC system technology will enhance the sound quality and fidelity of the FM band, compared with existing analog FM in mobile listening environments;
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> (ii) hybrid IBOC digital coverage is comparable to analog coverage, and that due to FM IBOC's improved resistance to various types of interference, FM IBOC service will be provided in areas where analog service is currently of unacceptable quality;

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[3] *See* Comments of Clear Channel Communications, Inc.; Comments of Visteon Corp.; Comments of Victor Company of Japan Ltd.; Comments of iBiquity Digital Corp. at 15; Comments of Nautel Limited and Nautel Maine, Inc.; Comments of Kenwood Corp.; Comments of ALPS Electronic (USA), Inc.; Comments of Radio One, Inc.; Comments of Cox Radio, Inc.; Comments of The Walt Disney Co. and ABC, Inc.; Comments of Bonneville International Corp.; Comments of Harris Corp.; Comments of the Consumer Electronics Association; Comments of Clear Channel Communications, Inc.; Comments of Texas Instruments; Comments of Infinity Broadcasting Corp.; Comments of Toko America, Inc.; Comments of Susquehanna Radio Corp.; Comments of Pinwheel, Inc.; Comments of Valley Broadcasting Inc.; Comments of KMAT(FM); Comments of Shively Labs; Comments of Pamal Broadcasting, Ltd.; Comments of the National Association of Broadcasters; Comments of Evangelistic Alaska Missionary Fellowship; Comments of Impulse Radio, Inc.; Comments of Journal Broadcast Corp.

> (iii) iBiquity's IBOC system produces a signal that is substantially more robust to impulse noise, co- and adjacent channel interference, and multipath fading;
>
> (iv) the acquisition performance of the iBiquity IBOC system is essentially identical to that of an analog FM Radio;
>
> (v) the iBiquity IBOC system will provide significant auxiliary data transmission capabilities; and
>
> (vi) listeners will not perceive an impact on analog reception during hybrid IBOC operation or on subcarrier services.[4]

Based on the NRSC Evaluation, Infinity is confident that broadcasters will be able to implement the hybrid phase of the transition to DAB with minimal and easily-manageable disruption to the public. Most of the other comments support one or many of these benefits identified by Infinity.

iBiquity is particularly gratified by the strongly supportive comments of those parties that have had the most direct exposure to IBOC. Several of the broadcasters that have hosted IBOC testing on their stations noted the value of IBOC and reported on their positive experience with the technology. For example, Radio One notes that its "experience with the IBOC system at WWIN-FM was uniformly positive."[5] Clear Channel notes that it "has been pleased with the performance of the IBOC system on the Clear Channel test stations [and that] the introduction of IBOC has not caused any disruption to these stations' existing operations nor has there been any degradation to the analog broadcasts."[6] Infinity notes that its station engineers "observed that the impact on the stations' analog operations from the implementation of the IBOC system was minimal, and that none of the participating Infinity stations received reports of any interference

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4 Comments of Infinity Broadcasting Corp. at 3-4 (citing NRSC Evaluation at 10-11).

5 Comments of Radio One at 2.

6 Comments of Clear Channel Communications, Inc. at 1-2.

caused to other stations as a result of the IBOC operations."[7] Moreover, parties that participated in the NRSC process uniformly support the prompt introduction of IBOC. For example, both of the NRSC's sponsors, the NAB and CEA, as well as active NRSC participants, such as Journal Broadcast Corporation and Susquehanna Radio Corp., submitted statements strongly endorsing IBOC.[8]

These comments demonstrate broad agreement within the radio industry that IBOC will serve the needs of listeners, broadcasters, manufacturers and the Commission. No technical problems associated with IBOC have been identified, and no credible regulatory or business impediments to the implementation of IBOC have been presented. The record now before the Commission demonstrates that the iBiquity system can be successfully implemented in the United States and should be promptly approved. Therefore, iBiquity encourages the Commission to proceed with an endorsement of IBOC on an expedited basis and to authorize stations to commence broadcasts using the iBiquity system.

II. The Commission Should Authorize Digital Broadcasting Pending Adoption of Final IBOC Rules

The comments indicate that many entities are anxious to commence digital broadcasting and are excited about IBOC's ability to enable broadcasters to improve service for their listeners.[9] Many commenters also note that IBOC will allow broadcasters to remain competitive in a world where the Internet and satellite DARS services are offering new means for distribution

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7 Comments of Infinity Broadcasting Corp. at 3.

8 *See* Comments of the National Association of Broadcasters; Comments of the Consumer Electronics Association; Comments of Journal Broadcast Corp.; Comments of Susquehanna Radio Corp.

9 *See supra* note 3.

of audio programming[10] and urge prompt Commission action to authorize IBOC on an interim basis pending adoption of final rules.[11] For instance, Kenwood Corporation, a leading developer of home and mobile enhancement electronic products, including radios, urges the Commission to "authorize broadcasters to introduce IBOC immediately as the Commission completes its work on final IBOC rules and the IBOC standard."[12] iBiquity supports this view and has established a business plan that will allow for the expeditious commercial introduction of IBOC service this year. In order to meet industry time requirements, it will be critical for the Commission to authorize interim IBOC operations in its First Report and Order on digital radio.

As discussed below, interim authorization can be approved without prejudice to final Commission action, and IBOC can be implemented in a manner that will maintain the integrity of the existing analog radio infrastructure. The interim approach articulated herein is consistent with past Commission precedent for new radio technologies. For example, in 1982 the Commission provided interim authority for the construction, launch and operation of Direct Broadcast Satellite Systems even though final domestic or international technical and licensing rules had not been adopted. The Commission determined that the public interest in the expeditious introduction of new competitive video programming services offered ample justification for providing interim DBS authorization: "under interim rules, we would permit implementation of the service several years earlier than if we waited until . . . permanent rules were . . . established. . . . [A]uthorization of interim DBS systems would provide valuable

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10 *See, e.g.,* Comments of Cox Radio, Inc. at 2; Comments of The Walt Disney Co. and ABC, Inc. at 1; Comments of Harris Corp.; Comments of National Association of Broadcasters at 9; Comments of Infinity Broadcasting Corp. at 6-8.

11 *See* Comments of Clear Channel Communications, Inc. at 2; Comments of Kenwood Corp. at 4; Comments of Victor Company of Japan Ltd. at 2-3; Comments of iBiquity Digital Corp. at 15; Comments of Nautel Limited and Nautel Maine, Inc. at 2-3; Comments of ALPS Electronic (USA), Inc. at 2.

12 Comments of Kenwood Corporation at 4.

experience that would allow us to make better-informed judgments concerning permanent regulations."[13] More recently, the Commission provided interim authority for MDS and ITFS licensees to convert from analog to digital transmission.[14] In all of these cases the Commission concluded that the technology was sufficiently flexible so that there was little risk the interim service would prejudice the outcome of the final rules. Given the record here, the Commission has ample basis to proceed with an interim IBOC policy.

A. Immediate Authorization of Digital Broadcasts Is Necessary to Foster a Successful Commercial Launch of IBOC

Working with its strategic partners in the broadcasting, semiconductor and consumer electronics industries, iBiquity has developed a comprehensive program for the introduction of IBOC in stages throughout 2002 and 2003. Commencement of digital broadcasting in 2002 is necessary to support the final stages of commercial launch of IBOC scheduled for early 2003. In particular, iBiquity plans to commence digital broadcasting focused on six rollout cities during 2002 as a critical component of the commercial launch of IBOC. iBiquity encourages the Commission to foster the commercial rollout schedule by authorizing digital broadcasting in 2002 while the Commission finalizes IBOC rules and develops an IBOC standard.

The commercial launch of IBOC involves two components. Broadcasters need to transmit digital signals, and retailers need to offer IBOC receivers for sale. iBiquity plans for commercial digital receivers to be available in stores during the Spring 2003 season. In order to

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13 *See Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference*, Gen. Docket No. 80-603, *Report and Order*, 90 FCC 2d 676, 683 (1982).

14 *See Declaratory Ruling and Order*, 11 FCC Rcd 18839 (1996). The Commission also has, on numerous occasions, authorized interim operation of a broadcast station pending resolution of comparative hearings because the public interest would be better served by an operational station rather than no station whatsoever. *See, e.g., Biltmore Forest Radio, Inc.*, 10 FCC Rcd 13066 (1995); *see also* 47 C.F.R. § 73.3592 (allowing the Commission to grant interim authority to operate a station subject to mutually exclusive applications).

meet that goal, iBiquity is working with its strategic partners in the consumer electronics industry to launch receiver sales at the Consumer Electronics Show in January 2003 ("CES '03"). However, iBiquity recognizes that sales of receivers will not be feasible until there are broadcasters transmitting digital audio signals to consumers. Consumers will not be interested in purchasing digital receivers, and retailers will not promote sales of digital receivers if there is no digital audio programming offered by broadcasters. Therefore, iBiquity is working with broadcasters to support a 2002 IBOC rollout focused on six primary broadcast markets: New York, Los Angeles, Chicago, San Francisco, Seattle and Miami. These rollout markets were selected due to their size and volume of sales of aftermarket automobile receivers. In order to support the launch of receiver sales, iBiquity is working to ensure that digital broadcasts are available for stations with a combined market share in excess of 50% for each of these markets.

Coordinating the timing of this commercial launch is particularly critical. To complete a full IBOC receiver launch by Spring 2003, the following actions must take place in order. First, transmitters must be purchased by radio broadcasters. This process will begin at the 2002 NAB show when transmitter manufacturers will start to take orders for IBOC equipment. Second, the actual transmitter equipment must be manufactured and shipped to broadcasters. If orders are taken in April 2002, transmitters can be shipped for installation in Fall 2002. Third, the IBOC equipment must be installed and tested at the stations.

The ability of broadcasters to commence digital broadcasts will be a decisive issue affecting when consumer electronics manufacturers begin to produce IBOC receivers. The critical date for the consumer electronics manufacturers is the January 2003 CES '03 show when retailers order new products to be introduced that year. If commercial IBOC receivers are introduced at CES in January 2003, they can be available to the public in April 2003. Otherwise,

the commercial availability of IBOC receivers will be delayed until after CES in 2004. In addition, receiver manufacturers will have wasted considerable capital preparing for a 2003 launch of IBOC receivers. In the meantime, the benefits of IBOC will be delayed another year, and the competitive environment of the commercial radio industry will continue to evolve as satellite DARS proliferates and other competitive services are offered to the public. Thus, in order for iBiquity to successfully launch IBOC in 2003, broadcasters will need to begin transmitting digitally by the third quarter of 2002.

iBiquity understands that it will not be possible for the Commission to finalize all its IBOC rules and policies before a 2002 rollout. It therefore urges the Commission to authorize broadcasters to begin IBOC transmissions on an interim basis until final rules are adopted, subject to the regulatory constraints outlined below.

B. Interim IBOC Authorization Will Not Prejudice Final Commission Action on IBOC

iBiquity believes that the Commission can provide existing radio stations with interim authority to begin IBOC broadcasting prior to the adoption of final rules without prejudicing the Commission's decisions in this proceeding. iBiquity recommends that stations' interim digital operations be required to conform to the system operations detailed in iBiquity's test report.[15] The Commission's final IBOC rules, however, will need to specify final power levels and operating parameters for digital broadcasts. iBiquity anticipates that any changes from interim operations that the Commission imposes can be implemented by adjustments to the settings of the digital exciter and transmitter. The digital receivers are designed with sufficient flexibility to operate with any changes that iBiquity anticipates the Commission would impose. Similarly,

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[15] *See* iBiquity Digital Corporation, Report to the National Radio Systems Committee, FM IBOC DAB Laboratory and Field Testing, Aug. 2001 ("iBiquity Test Report").

because the IBOC system is a software-based implementation, any changes in the transmission requirements can be carried out by updating the software in the digital exciter. Thus, the Commission is not going to be constrained by the interim authorization of digital broadcasts.

In addition, iBiquity's rollout plans call for a targeted digital implementation. iBiquity expects that digital operations would be limited to no more than 120 stations during the interim period before the Commission implements final IBOC rules. This will put a natural limit on the proliferation of IBOC transmitters during the interim period and provide limits on the ability of interim operations to influence final Commission action.

Finally, the Commission should condition the interim authorization on conforming operations to the final IBOC rules. By imposing this condition, manufacturers and broadcasters will be put on notice that their investment in IBOC equipment may be subject to final regulatory changes. iBiquity believes that those parties who understand the iBiquity technology are prepared to make an investment in IBOC before final rules are adopted because of the inherent flexibility incorporated in the technology.[16]

C. The Technical Integrity of the Existing Analog Infrastructure Can Be Maintained During Interim IBOC Operations

Another critical issue facing the Commission when considering interim authorization is whether there is any risk that interim operations will adversely impact the existing analog infrastructure. iBiquity believes that the record in this proceeding demonstrates there is little risk. Moreover, iBiquity believes the existing technical rules for AM and FM radio coupled with a few additional safeguards will provide the Commission, broadcasters and the listening public

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[16] *See* Comments of Clear Channel Communications, Inc. at 2; Comments of Victor Company of Japan Ltd. ("JVC") at 2-3; Comments of iBiquity Digital Corp. at 15; Comments of Nautel Limited and Nautel Maine, Inc. ("Nautel") at 2-3; Comments of Kenwood Corp. at 4; Comments of ALPS Electronic (USA), Inc. at 2.

confidence that the technical integrity of analog radio will be maintained during the interim operations period.

As discussed above and in the comments, the iBiquity system can be introduced without adversely affecting analog listeners. The NRSC Evaluation concluded:

> [L]isteners should not perceive an impact on the analog host signal, nor on the analog signals on carriers that are either co-channel or 2nd-adjacent channel with respect to an IBOC signal. With respect to carriers that are located 1st adjacent to an IBOC signal, listeners within the protected contour should not perceive an impact . . . .[17]

The comments in this proceeding fully support the conclusions of the NRSC Evaluation on this issue. It is important to note that no one has provided any evidence to the contrary. Based on the extensive testing of the iBiquity system, the NRSC Evaluation as well as the comments submitted in this proceeding, the Commission should have a great deal of confidence that the iBiquity system can be introduced without adversely impacting existing analog operations. Given this record, the Commission should feel comfortable in authorizing interim operations before final rules are adopted as long as those operations conform to the specifications of the iBiquity system as detailed in its testing program.

The Commission can obtain further comfort by recognizing that any IBOC operation must conform to existing technical rules for radio broadcasting. Specifically, interim IBOC operators will need to conform to the FCC's radio emission masks.[18] These emission masks will insure that all stations receive sufficient protection from harmful interference.

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[17] NRSC Evaluation at 9.

[18] *See* 47 C.F.R. §§ 73.44 (AM transmission mask), 73.317 (FM transmission mask).

D. Regulatory Structure For Interim Operations

The Commission will need to establish a legal mechanism to authorize interim operations, including certain technical and procedural safeguards. Specifically, iBiquity believes that the Commission should provide blanket interim authority for broadcasters to commence IBOC transmissions.[19] Past precedent supports this approach. On a number of occasions the Commission has provided AM and FM radio licensees blanket authority to begin additional transmissions within a station's emission mask without first obtaining individual authorizations. This blanket authority approach was used to authorize FM broadcasters to provide subcarrier services[20] and AM broadcasters to implement AM stereo.[21] The Commission concluded in each of these cases that blanket authorization was appropriate because the introduction of the additional signal was not likely to cause a risk of new interference into the existing infrastructure. As discussed above, based on the existing record in this proceeding, the Commission should have the same confidence it had with FM subcarriers and AM stereo to conclude on an interim as well as permanent basis that it is unnecessary to separately approve each station's upgrade to IBOC.[22] In all of these cases an emissions mask existed to protect the integrity of the preexisting transmission system.

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19 Although the Commission may provide blanket authority for all stations to commence IBOC transmissions, the actual number of stations that can actually begin such transmissions is limited by the number of IBOC exciters that can be constructed and the logistics of station conversions.

20 *See Amendment of Parts 2 and 73 of the Commission's Rules Concerning Use of Subsidiary Communications Authorizations,* BC Docket No. 82-536, *First Report and Order*, 53 RR 2d 1519, para. 15 (1983).

21 *See AM Stereophonic Broadcasting*, Docket No. 21313, *Report and Order*, 51 RR 2d 1 (1982); 47 C.F.R. § 73.128(a).

22 The Commission has also issued blanket authorizations for television licensees to provide subcarrier and ancillary data services. *See* 47 C.F.R. § 73.646; *Amendment of Parts 2, 73 and 76 of the Commission's Rules to Authorize the Transmission of Teletext by TV Stations*, BC Docket No. 81-741, *Report and Order*, 53 RR 2d 1309 (1983); *Amendment of Parts 2, 73, and 76 of the Commission's Rules to Authorize the Offering of Data Transmission Services on the Vertical Blanking Interval by TV Stations*, MM Docket No.

In order to insure an orderly transition to IBOC during the interim period, iBiquity suggests that the Commission incorporate the following procedural safeguards into its interim authorization:

- Interim authorization is without prejudice to the Commission's authority to implement appropriate final IBOC rules.
- Any broadcaster commencing digital broadcasts will be required to conform its operations to any final IBOC rules the Commission adopts.
- All digital operations must conform to the hybrid mode system operations detailed in iBiquity's test report to the Commission.
- All stations should be required to notify the Commission by letter prior to commencement of digital broadcasts and certify that their operations will be based on iBiquity specifications.
- Any such notification should include a point of contact at the IBOC station who can respond to any technical questions raised regarding the station's digital operations.
- Broadcasters are expected to resolve in good faith interference complaints inside a protected contour to the best of their ability.
- Any complaints should be based on detailed and credible technical information.
- To the extent the Commission determines digital broadcasts have created harmful interference inside an adjacent station's protected contour, the Commission reserves the right to order a particular station to terminate digital broadcasts without the need for a hearing or other Commission inquiry.

These safeguards will provide the Commission, broadcasters and the listening public with additional confidence that IBOC can be introduced during this interim period without prejudicing the final rules. They also will help maintain the technical integrity of the existing analog infrastructure. In particular, IBOC broadcasts must conform their IBOC transmissions to the

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84-168, *Report and Order*, 101 FCC 2d 973 (1985); *Digital Transmission Within the Video Portion of Television Broadcast Station Transmissions*, MM Docket No. 95-42, *Report and Order*, 11 FCC Rcd 7799 (1996).

precise iBiquity technical specifications, including power and spectral occupancy limitations.[23] This requirement will insure that IBOC systems are operated in a manner that will avoid adjacent channel interference. Notification to the Commission prior to the start of IBOC transmission and designation of a point of contact will provide information that can be used in the unlikely event any interference issues created by an IBOC signal arise inside an adjacent station's protected contour. Finally, stations transmitting on an interim basis cannot claim any right to continue IBOC operations in the event they cause interference within the protected contour of an adjacent station. Collectively these safeguards will provide a framework for the successful introduction of IBOC during the proposed interim phase.

III. Regulatory Issues

A number of the commenters made proposals on different aspects of the regulatory structure for IBOC. iBiquity applauds this discourse but submits that these issues do not need to be resolved in order for the Commission to endorse IBOC and the iBiquity system. Rather, iBiquity urges the Commission to examine these issues following a Further Notice of Proposed Rulemaking specifying a regulatory structure for IBOC. This Further Notice should be released at the same time the Commission issues its First Report and Order on digital radio. Nonetheless, iBiquity details below its general view of some of these regulatory issues raised in the comments.

A. Protection of Adjacent Channels

The CEA comments and the NRSC Evaluation note that the Commission will not protect a station from interference outside that station's protected contour.[24] The Commission has stated that it intends to apply this policy to questions concerning the impact of IBOC on adjacent

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[23] These specifications are detailed in Appendix A of the iBiquity Test Report.

[24] *See* Comments of CEA at 4-5; NRSC Evaluation at 55.

channel stations outside their protected contours.[25] The issue the Commission ultimately needs to resolve is how to address concerns about adjacent channel interference within the protected contour. CEA suggests that the Commission use the interference protection guidelines specified for FM blanketing interference as the basis for a remedy for listeners who experience interference *inside* the protected contour as a result of the commencement of IBOC broadcasting. iBiquity believes that this approach would slow the introduction of IBOC. The public interest would be better served by a regulatory approach that has a presumption in favor of IBOC. iBiquity will provide detailed views on this issue in the future. However, the Commission does not need to resolve this issue in order to now endorse IBOC and iBiquity system.

B. Designation of an IBOC Standard

Throughout this proceeding there has been nearly universal support for the designation of an IBOC standard. None of the comments disagrees with this view. CEA once again expresses its view that "the Commission must adopt a single FM IBOC standard."[26] Resolution of what should be included in the standard and who should adopt or maintain the standard has yet to be analyzed in any detail. However, iBiquity believes the Commission is in a position to endorse the need for an IBOC standard and use the Further Notice to resolve issues relating to the standard.

CEA also suggests that any entity holding patent rights required to implement the standard "be asked to supply a statement indicating that either a) a license shall be made available without change to applicants desiring to use the patent for the purpose of implementing the standard, or b) a license should be made available to applicants under reasonable terms and

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25 *See Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Broadcast Service*, MM Docket No. 99-325, *Notice of Proposed Rulemaking*, 15 FCC Rcd 1722, 1735 (1999).

26 CEA Comments at 2.

conditions that is demonstrably free of any unfair discrimination."[27] iBiquity agrees. As the Commission is aware, iBiquity holds many patents relating to the IBOC system. iBiquity further understands that if its system is designated a standard, it will need to comply with the patent policy specified by the standard setting authority. If the Commission designates the IBOC system as a standard, iBiquity will comply with the terms of the FCC's existing "Patent Policy."[28]

IV. Other Issues

There are several other issues raised in the comments, some of which are not directly related to the introduction of IBOC. Specifically, National Public Radio ("NPR") raises a question as to the technical impact IBOC will have on subsidiary communication services[29] and several other parties raise questions regarding the implementation of digital subcarriers.[30] As the Commission is aware, iBiquity has been working with all these parties to determine the impact that IBOC will have on subcarriers. This report will be submitted to the Commission shortly.

NPR also urges the Commission to allocate new spectrum for digital radio.[31] iBiquity believes that this is a separate issue not relevant to this technical proceeding and therefore urges the Commission to address the need for new spectrum in another forum.[32]

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27 *Id*. at 3-4.

28 *See* Revised Patent Procedures of the Federal Communications Commission, Public Notice (Dec. 1961), reprinted in 3 FCC 2d 26 (1966).

29 *See* NPR Comments at 4.

30 *See* Comments of Impulse Radio, Inc. and International Association of Audio Information Services ("IAAIS").

31 *See* NPR Comments at 11-13.

32 In a separate matter, Radio One urges the Commission to take action to resolve Receiver Induced Third Order Intermodulation ("RITOI") problems. *See* Comments of Radio One at 4-7. iBiquity support efforts to improve the reliability of existing FM stations but does not believe that the RITOI issue needs to be addressed in order for the Commission to endorse IBOC and the iBiquity system.

V. Conclusion

For all of the above reasons, iBiquity urges the Commission to expeditiously endorse IBOC as the means to implement digital radio in the United States, establish an interim approach that will allow broadcasters to begin transmitting IBOC signals in the Fall of 2002 and issue a Further Notice of Proposed Rulemaking with proposed final rules for IBOC implementation.

Respectfully submitted,

By: /s/ Robert A. Mazer

Robert A. Mazer
R. Edward Price
Vinson & Elkins L.L.P.
1455 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
(202) 639-6500

Albert Shuldiner
Vice President and General Counsel
iBiquity Digital Corporation
8865 Stanford Boulevard
Suite 202
Columbia, Maryland 21045
(410) 872-1536

Counsel for iBiquity Digital Corporation

March 21, 2002

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 21st day of March 2002, a true and correct copy of the foregoing **Reply Comments of iBiquity Digital Corporation**, was served by first class mail, postage prepaid, upon the following:

Jeff Smulyan
One Emmis Plaze
40 Monument Circle, Suite 700
Indianapolis, IN 46204
Counsel for Emmis Communications

David Corts
Paul Signorelli
Impulse Radio
826 Broadway, 9th Floor
New York, NY 10003

Clear Channel Communications, Inc.
50 East RiverCenter Blvd., Ste. 1200
Covington, KY 41011

Charles T. Morgan
Senior Vice President
Susquehanna Radio Corp.
140 E. Market Street
York, PA 17401

Hal S. Widsten
General Manager
KWED Radio
609 East Court Street
Seguin, TX 78155

Reid Ashbaucher
Radio Engineer
Maumee Valley Broadcasting Inc.
P.O. Box 457
Holland, OH 43528

William E. Cordell
Licensee of KMAT-FM
866 N Wilcrest
Houston, TX 77079

Robert A. Surette
Manager, RF Engineering
Shively Labs
P.O. Box 389
Harrison Road
Bridgton, Maine 04009

Paul Howard-Thurst, CSRE
Corporate Chief Engineer
PAMAL Broadcasting, LTD
P.O. Box 310
Beacon, NY 12508

Henry L. Baumann
Jack N. Goodman
Valerie Schulte
National Association of Broadcasters
1771 N Street, NW
Washington, D.C. 20036

Patrick Ward
Engineer
Virginia Center for The Public Press
Radio Free - Richmond Project
1621 W Broad Street
Richmond, VA 23220

David W. Noble
Immediate Past President &
Chairman IAAIS Government
Affairs
c/o Sun Sounds of Arizona
3124 E. Roosevelt
Phoenix, AZ 85008
Counsel for International Association
of Audio Information Services

Robert F. Law
Vice President
Kenwood USA Corporation
2201 East Dominguez Street
Long Beach, CA 90801

Gregory A. Lewis
Neal A. Jackson
Donald Lockett
Michael Starling
Kathryn Riley Dole
Dana Davis Rehm
National Public Radio, Inc.
635 Massachusetts Avenue, N.W.
Washington, D.C. 20001

Jeff Littlejohn
Senior Vice President – Engineering
Clear Channel Broadcasting, Inc.
50 E. River Center Blvd., Ste. 1200
Covington, KY 41011

Don Schellhardt. Esq.
7050 Montview Blvd, Ste. 175
Denver, CO 80220
Counsel for The Amherst Alliance/
Alan J. Wood FRN: 0004-3017-27

Nickolaus E. Leggett
N3NL Amateur Radio Operator
1432 Northgate Square, Apt. 2A
Reston, VA 20190-3748

Alan Joseph Wood
750 East Irvington Rd., Apt. 1413
Tucson, AZ 85714

Johnathan Grant
1407 Schuler Drive
Kokomo, IN 46901

Naresh Coppisetti
DAB Digital Radio Business Manager
Texas Instruments Incorporated
12203 Southwest Freeway, MS 701
Stafford, TX 77477

David B. Hale
Toko America, Inc.
1250 Freehanville Drive
Mt. Prospect, IL 60056

Atsushi Unno
Wayne, NJ 07470

Christopher J. Sova
Steven A. Lerman
Sally A. Buckman
Stephen A. Hildebrandt
Leventhal, Senter & Lerman
2000 K Street, NW, Suite 600
Washington, D.C. 20006
Counsel for Infinity Broadcasting Corp.

Michael R. Riksen
Director, Government Relations
Harris Corporation
1201 E. Abington Drive
Alexandria, VA 22314

Kenneth E. Satten, Esq.
Wilkinson Barker Knauer, LLP
2300 N Street, N.W., Ste. 700
Washington, D.C. 20037-1128
Counsel for Bonneville International
Corporation

Douglas Kiel
Vice President
Journal Broadcast Corporation
720 E. Capitol Drive
Milwaukee, WI 53212

Michael Plantamura
Radio One, Inc.
5900 Princess Garden Parkway, 8th Floor
Lanham, MD 20706

Michael Petricone
Gary S. Klein
Ralph Justus
David Wilson
Consumer Electronics Association
2500 Wilson Boulevard
Arlington, VA 22201

Kevin F. Reed
Scott S. Patrick
Brian M. Salb
Elizabeth A. McGeary
Dow, Lohnes and Albertson
1200 New Hampshire Avenue, NW
Suite 800
Washington, D.C. 20036
Counsel for Cox Radio, Inc.

Susan L. Fox, Esq.
Vice President, Government Relations
The Walt Disney Company
& ABC, Inc.
1150 17th Street, N.W., Ste. 400
Washington, D.C. 20036

/s/ Patricia Gibson
Patricia Gibson
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